

Claims

1. Balancing station for positioning and holding a vehicle wheel for the attachment of a balance weight with a clamping device which has at least two mutually opposing jaws designed for pressing against the wheel periphery, said jaws being rotatably mounted around a common clamping axis, at least one thereof being rotatable and movable to and fro in the direction of the clamping axis by means of a drive, and with a conveyor device by means of which the vehicle wheel can be conveyed prone between the jaws of the clamping device, characterized in that the clamping device (13) can be moved into a tilted position wherein the clamping axis is inclined at an angle of at least 30° from the horizontal out of a basic position wherein the clamping axis of the jaws (23, 25) is aligned substantially horizontally.
2. Balancing station according to claim 1, characterized in that the clamping device (13) has a frame (14) with two legs (17, 18) extending in the conveying direction on both sides of the conveyor device (6), to which legs (17, 18) a jaw (23, 25) is attached respectively, and in that the frame (14) is pivotable into the tilted position around a swivel axis running transversely to the clamping axis.
3. Balancing station according to claim 2, characterized in that at least one leg (17) extending in the conveying direction is fixable to the frame (14) in a first and a second position, the distance between the leg (17) and the opposing leg (18) being greater in the first position than in the second position.
4. Balancing station according to any one of the preceding claims, characterized in that the jaws (23, 25) have two parallel rollers (26) respectively which form a contact surface for the wheel periphery.
5. Balancing station according to claim 4, characterized in that at least one of the rollers (26) is coupled with a rotary drive for rotational adjustment of the vehicle wheel (36) into the balancing position.

6. Balancing station according to claim 5, characterized in that the rotary drive is arranged in the roller (26).
7. Balancing station according to either claim 5 or claim 6, characterized in that a rotating piston air engine with a reduction gear is provided as a rotary drive.
8. Balancing station according to any one of claims 4 to 7, characterized in that a measuring device for measuring the rotational angle of the roller (27) is arranged at one roller (27).
9. Balancing station according to claim 8, characterized in that the roller (27) is freely rotatable.
10. Balancing station according to any one of the preceding claims, characterized in that a first jaw (25) is fixed at one end of a shaft (28) which is mounted rotatably and movable longitudinally in a housing (29), in that the shaft (29) is coupled to a rotary drive (30) arranged in the housing (29) and in that a yoke (31) is mounted rotatably at the other end of the shaft (28) and transmits thereto the movement of the piston rod (32) of a lifting cylinder (33) which is mounted to the housing parallel to the shaft (28).
11. Balancing station according to any one of the preceding claims, characterized in that a second jaw (23) is rotatable through an angle of 180° into two end positions limited by stops and can be detained at the leg (17) in said end positions by friction locking, in particular by means of spring catches.
12. Balancing station according to any one of the preceding claims, characterized in that the conveyor device (6) is arranged at an elevating table (10) and can be lowered below the conveying plane by lowering the elevating table (10).
13. Balancing station according to any one of the preceding claims, characterized in that the conveyor device (6) has at least two conveyor belts (7) or similar continuous conveyor elements arranged at a distance from one another.

14. Balancing station according to any one of the preceding claims, characterized in that the conveyor device (6) is adjacent to a plurality of parallel transport rollers (11) with a rotating axis orientated transversely to the clamping axis, said transport rollers (11) being mounted on a lift bolster (12) which is in a lower position wherein the transport rollers (11) are provided below the conveying plane of the conveyor device (6) and is movable into an upper position in which the transport rollers (11) protrude beyond the conveying plane of the conveyor device (6).

15. Balancing station according to claim 14, characterized in that the lift bolster (12) is mounted at the elevating table (10) and abuts against it.

16. Balancing station according to any one of the preceding claims, characterized in that a fence roller is arranged at the leading and/or trailing edge of the conveyor device.